

Editorial Preface

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In your hands is the second issue of 2020 of the *International Journal of Web Portals*. This issue includes five relevant contributions focusing a predictive maintenance planning system on a web platform, analysis and optimization of websites access, use of social media platforms by public universities, a conceptual model for security assessment and e-services quality in a telecommunications platform. In another highly international issue, you will find a set of contributions authored by renowned authors, this time from Brazil, India, United Arab Emirates, Palestine and Portugal, briefly introduced below.

Predictive maintenance predicts failures and determines the equipment's remaining useful life, which provides maintenance time to plan their interventions preventing breakdowns or reducing their impact. In the first paper, "A Predictive Maintenance Planning System Implemented on a Web Platform," Romeira, Moura, and Santos present a software application, implemented in a web platform, to support the implementation of a predictive maintenance plan. The developed system currently monitors certain parameters of a plastic injection molding machine, with real-time alerts that notify the maintenance team when the measured temperatures are outside the defined limits. The platform includes the Report page, that calculates, automatically performance indicators, the Access management page and a page that allows the realization of autonomous maintenance interventions, the verification of its fulfilment and the visualization of the performed interventions' results.

The speed of content delivery plays a critical role in defining websites' accessibility and assessing consumer's interest. With the existing caching method, it is very challenging to identify web pages that need to be viewed and therefore cached. This is prompted by the assumption that there are large groups of users and each has their own interests. Sathiyamoorthi, Jayapandian, Prakasi, Kanmani, Vaithyanathan and Rao suggest, in their paper, "Analyzing and Optimizing the Usability of Websites Access," a different solution to the generation of web access trends by examining the web log file present on the proxy server. Additionally, the authors introduce a novel hybrid approach named Popularity-aware Updated Least Frequently Used (PMLFU) which is better adapted for the existing proxy-based Web caching environment, incorporating characteristics such as size, recency, visibility and access frequency in policy decision-making.

The use of social media platforms by university students and teachers has been found to facilitate the learning and teaching processes, providing opportunities for students to share and discuss relevant ideas and issues, thus making the task more enjoyable and raising the level of achievement. In "Exploring the Use of Social Media Platforms by Public Universities," Halaweh, Elbahi, Kamel, Kabha, and Yousef explore the use of social media platforms by public universities in Egypt. The authors investigated how universities utilized social media platforms, and whether they are used for educational purposes or not. The data was collected from 21 universities using a questionnaire survey of 2100 undergraduate and postgraduate students. The official social media pages of each university were surveyed and analyzed using content analysis method. The results revealed that the use of social media platforms by public universities was for the purpose of communicating with the general public more than the students. This study also found that most students consider social media platforms of their universities to be useless and not supporting their academic studies. This paper offers practical implications and recommendations for universities' decision makers and social media developers.

Security Assessment is crucial to the implementation and use of secure web portals. Literature reports studies about knowledge representation models for systems assessment and information security areas, however, the authors Rosa, Teixeira Junior, Bonacin, and Jino state that there is a lack

of conceptual formalization for the security assessment area. In their paper “SecAOnto: A Conceptual Model of Security Assessment,” the authors propose a Security Assessment Ontology (SecAOnto) based on ontologies, taxonomies, vocabularies, glossaries, and market’s guidelines. Their work presents an application of SecAOnto with the objective of identifying concepts in descriptions of security assessment items; the coverage of security characteristics is determined by using a coverage calculus algorithm. The application of SecAOnto and of the coverage calculus algorithms to the well-known standard ISO/IEC 27001 highlights its expressiveness. The proposal is useful for security experts and researchers in the context of security assessment, as well as to support Web-based conceptual architectures.

E-loyalty has received a great interest from researcher as a key element for customers’ retention and the growth of firms as well as gaining new customers. Ali Alkhateeb, in his work entitled “Impact of E-Services Quality on E-Loyalty in Paltel E-Satisfaction as Mediating Variable,” investigated the impact of the electronic Website services quality on E-loyalty in the companies listed within Paltel (Palestine Telecommunications Company) using electronic satisfaction as a mediating variable. Seven dimensions of e-service quality are examined including Content, Structure, Interaction, Presentation, Responsiveness, e-Security, and Reliability. The findings revealed and emphasized the role played by e-satisfaction as a mediating variable between the independent variable’s dimensions and the independent variable.

This issue was prepared while the world deals with the pandemic crisis COVID-19. We hope you this publication will find you safe and in good health, able find here an interesting and a valuable source of knowledge and ideas.

Enjoy your reading!

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